

# Modelling Ownership Structures

Asset managers – and family offices in particular – face the common challenge of having to individually manage investments held in different holding companies or trusts and frequently deposited with several different custodians. At the same time they are required to produce consolidated valuations of these assets and provide investors with periodic updates in the form of a transparent report. In the case of complex ownership structures, producing a breakdown of asset allocation, risk management and performance measurement for the investor's entire wealth can be a very laborious task. But there is a solution: e-AMIS offers a function for modelling ownership structures.

## SOLUTION

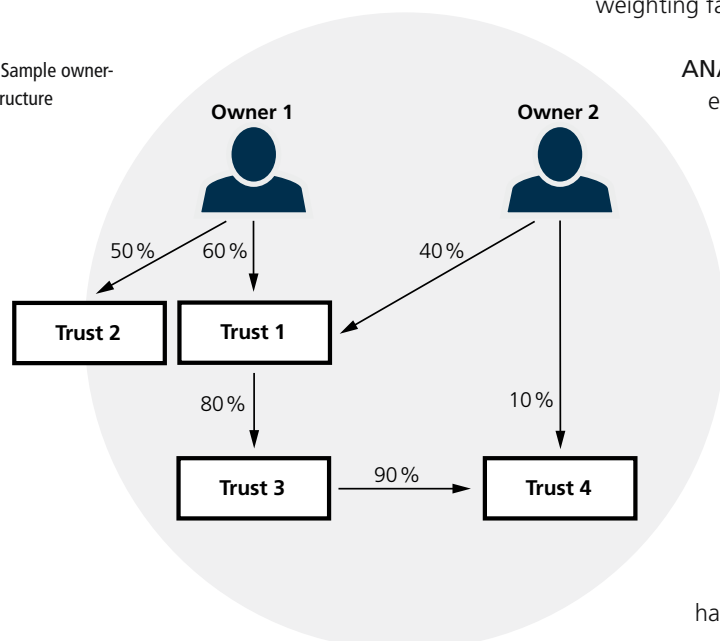
Essentially the nested ownership structures are based on a hierarchical arrangement of the portfolios which allows the assets to be analysed and consolidated at every level. Within these ownership structures, subordinate portfolios (holding companies, trusts, etc.) can be held within superordinate portfolios allocated to individual family members or owners (Fig. 1). The value of a participation is worked out on the basis of the net asset values and the relevant participatory ratio. Starting with just one owner (including all the associated portfolios), their entire assets can be consolidated across any levels of the portfolio hierarchy.

## IMPLEMENTATION

All the logical entities of the ownership structure (company, individual, trust, etc.) are defined as portfolios in the system. The relationships between the individual portfolios can be established with the help of technical instruments (shares) which are managed as a position in the respective superordinate portfolios. Here a share defines the relationship to an underlying portfolio, and a weighting factor defines the unit of the share.

Example (Fig. 1): the portfolio 'Owner 1' holds 60% shares in the portfolio 'Trust 1'. A unit 'Trust 1' defines the relationship to the portfolio 'Trust 1' with a weighting factor of 100. Through a transaction the position is created in the portfolio 'Owner 1' with 60 'Trust 1' shares. The participatory ratio is calculated on the basis of 60 shares / weighting factor 100 = 60%.

Fig. 1: Sample ownership structure



## ANALYSIS ACROSS THE ENTIRE OWNERSHIP STRUCTURE

e-AMIS offers the possibility to analyse the entire ownership structure across all portfolios and at every level. All portfolios held are weighted according to the shares owned, and consolidated in the portfolio to be analysed. As the consolidation is performed in stages from top to bottom, it is known as vertical consolidation.

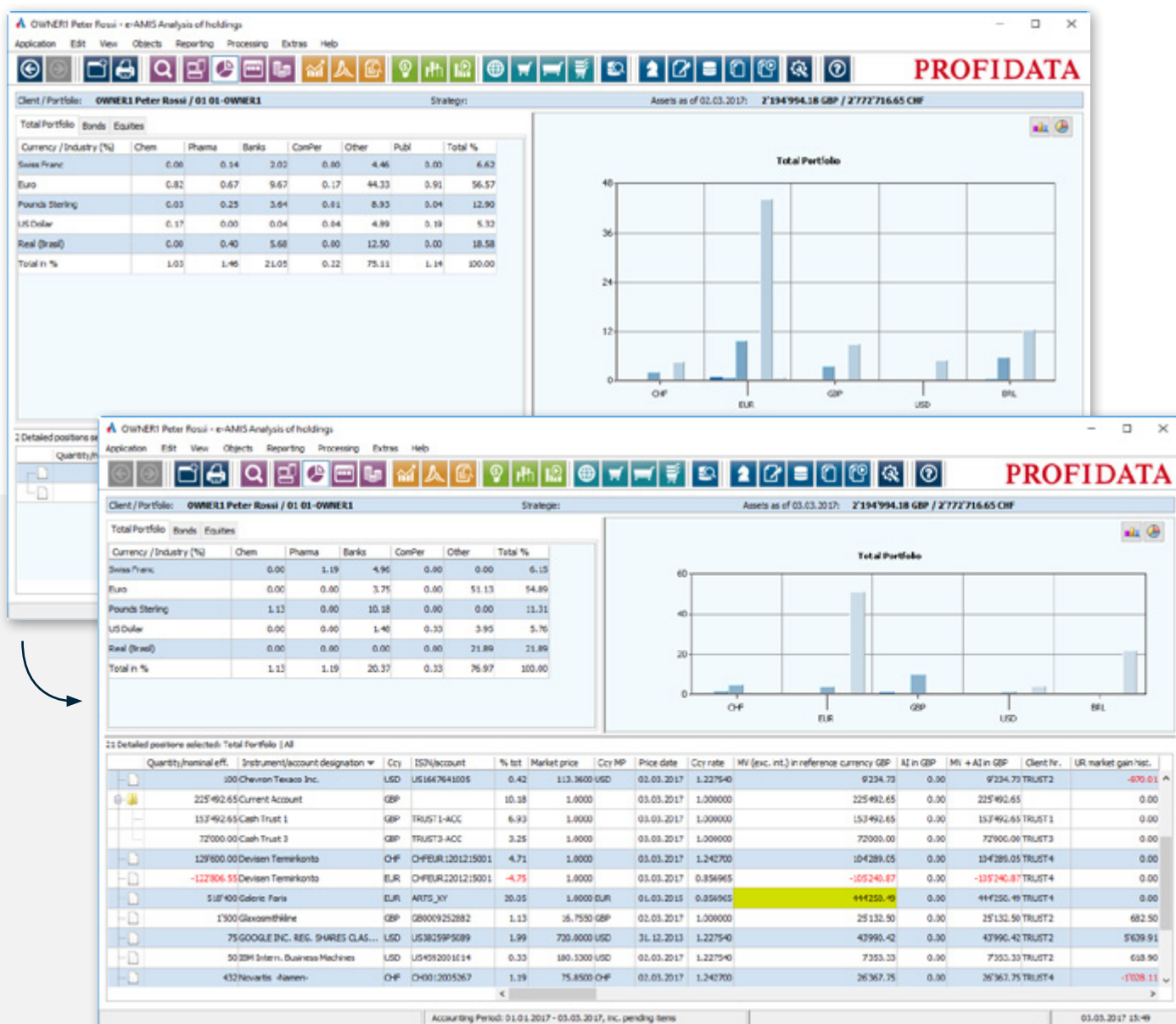
Example (Fig. 1): Consolidation is to be performed in the portfolio 'Owner 1'. The weighting factor is 100 for all the subordinate portfolios. The portfolio 'Owner 1' holds 60% shares in the portfolio 'Trust 1'. The portfolio 'Trust 1' owns 80% shares in the portfolio 'Trust 3', which results in a participatory ratio of 48% of the portfolio 'Owner 1' in the portfolio 'Trust 3'. The portfolio 'Trust 3' owns 90% of shares in the portfolio 'Trust 4', which means that the portfolio 'Owner 1' has a participation of 43.2% in the portfolio 'Trust 4'.

During consolidation there is a full drill-down of the shares to the individual positions (securities, accounts, real assets, etc.) that are managed in the subordinate portfolios which are then weighted according to the respective share.

Example (Fig.2): one of the positions contained in the portfolio 'Trust 4' is the property investment 'Galerie Paris' with an equivalent value of GBP 1'028'357.62. The portfolio 'Owner 1' has a 43.2 % participation in the portfolio 'Trust 4', which works out at an equivalent value of GBP 444'250.49.

In e-AMIS the user is free to select the level at which the portfolio drill-down is to be performed (Fig.2) and carry out at every level both structure and risk analyses, cash flow projections, performance calculations as well as analyses in any currencies, subsectors, etc. The vertical consolidation of the ownership structure can be done online and in the reporting process. Here both the shares and individual positions are valued. The function

Fig.2: Portfolio drill-down



Net Asset Value Calculation computes and stores a current price for every share. The price is worked out from the sum individual portfolio assets / weighting factor. Consideration is given to dependencies in the correct sequence, i.e. subordinate portfolios are valued before superordinate ones. If necessary the user can also break down just individual participations. The step-by-step analysis of the ownership structure discloses the ownership structure at every level. For every individual position, details are shown of which share or portfolio it belongs to.

For further information,  
please contact

**Dr. Frank Jenner**  
Management Board  
+41 44 736 47 47  
frank.jenner@profidata.com

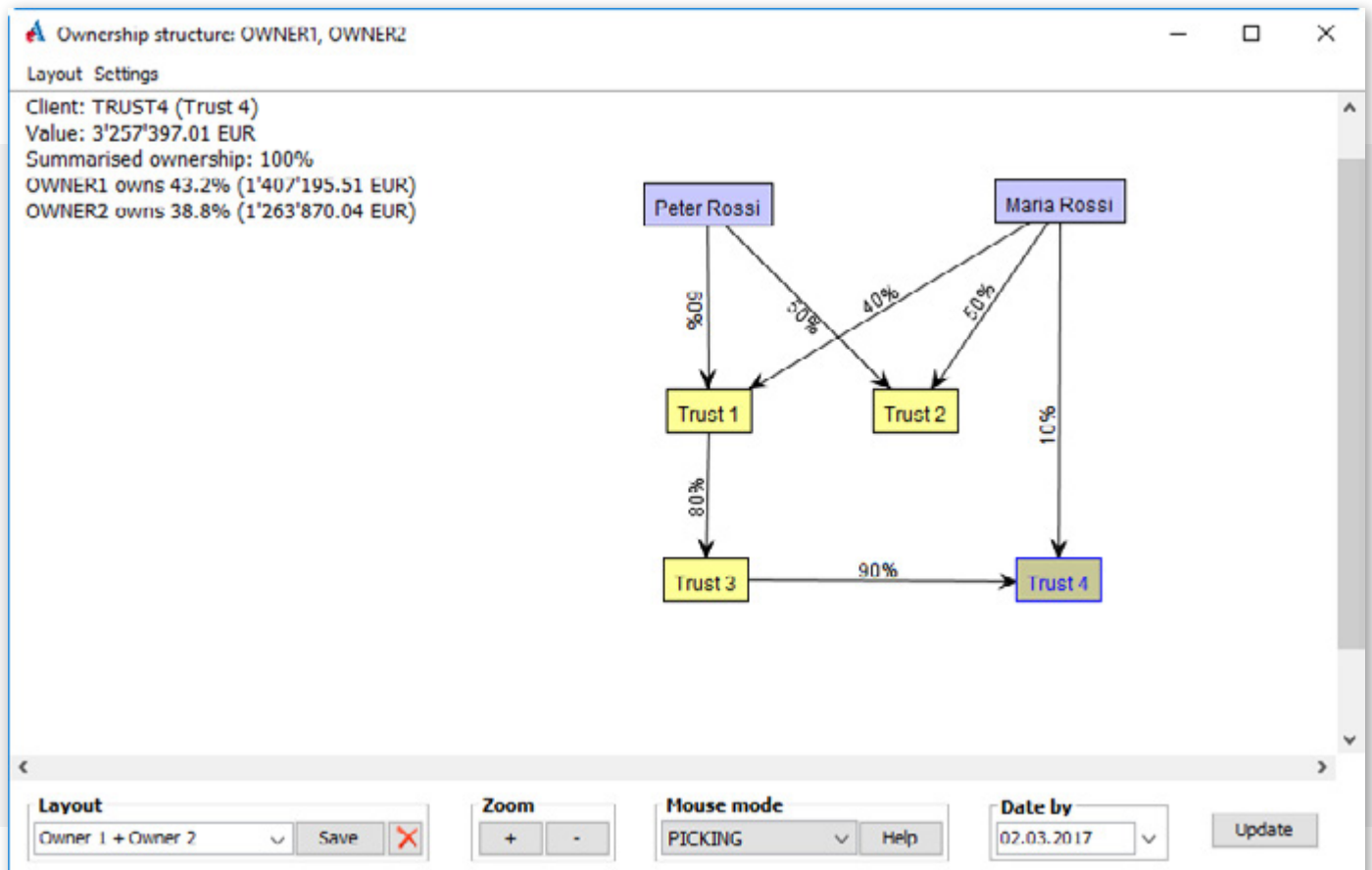
### GRAPHIC PRESENTATION OF AN OWNERSHIP STRUCTURE

e-AMIS provides a graphic representation of the entire ownership structure for one or more owners simultaneously (Fig. 3). The configuration suggested by the system can be manually edited and stored, allowing the user to retrieve preconfigured layouts with updated data at a later point in time. e-AMIS automatically detects errors in structures such as may be attributable to a participation of more than 100% or a structural participation cycle, for example. The system alerts the user to these errors. The graphic overview provides a complete drill-down that enables users to quickly analyse relationships between portfolios.

### CONCLUSION

By modelling ownership structures, e-AMIS enables users to model and analyse complex ownership structures at every level. Family offices and asset managers that use e-AMIS are spared the time and expense of having to administer complex ownership structures and perform consolidation manually. Not only online views, but the entire reporting for all the ownership structures can be generated automatically, thereby reducing the manual work even further.

Fig. 3: Graphic presentation of the ownership structure



SCHWEIZ  
Bändliweg 30  
8048 Zurich

DEUTSCHLAND  
Stephanstrasse 3  
60313 Frankfurt am Main

LUXEMBURG  
5 Rue Gabriel Lippmann  
L-5365 Munsbach

GROSSBRITANNIEN  
2nd Floor, Titchfield House  
69-85 Tabernacle Street  
London EC2A 4RR

SINGAPUR  
75 High Street  
Singapore 179435

[info@profidata.com](mailto:info@profidata.com)  
[www.profidata.com](http://www.profidata.com)

